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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/030,872	05/15/2002	Martin Hager	1850	8866

7590 05/06/2003

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103 East Neck Road
Huntington, NY 11743

EXAMINER

COMAS, YAHVEH

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 05/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/030,872

Applicant(s)

HAGER ET AL.

Examiner

Yahveh Comas

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 19 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☒ Claim(s) 3,5 and 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 October 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 403.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "17" and "15" have both been used to designate armature shaft (page 7, line 11). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "18" and "14" have both been used to designate printed circuit board (page 9, line 6). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "18" and "14" have both been used to designate the brush holder. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

4. The disclosure is objected to because of the following informalities:
The definition of term ASIC is not disclose.
Appropriate correction is required.
5. The disclosure is objected to because of the following informalities:
The use of brush holder as the support for the printer circuit, brush holder () .

Appropriate correction is required.

Claim Objections

6. Claim 3 is objected to because of the following informalities:

The groove reference number is the same as the printed circuit board reference number.

Appropriate correction is required.

7. Claim 9 is objected to because of the following informalities:

The brush holder reference number is the same as the printed circuit board reference number.

Appropriate correction is required.

8. Claim 5 is objected to because of the following informalities:

The definition of ASIC abbreviation is not disclosed in the specification.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

10. Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. This claim misses to disclose what the control electronics comprises clearly in such way that one skilled in the art make or use the invention.

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11. Claim 8 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The length between the commutator and the printed circuit board is not describe in the specifications in such full, clear, concise, and exact terms to enable one skilled in the art to make the invention.

12. Claim 15 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

How the printed circuit is attach to a segment is not disclose in such full, clear, concise, and exact terms as to enable any person skilled in the art to make or use this invention.

13. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

14. Claim 9-15, 17 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

15. Claims 9-11 and 13 recite the limitation " the brush holder".

There is insufficient antecedent basis for this limitation in the claim.

16. Claim 12 recites the limitation "the commutator".

There is insufficient antecedent basis for this limitation in the claim.

17. Claim 14 recites the limitation "the suppression elements".

There is insufficient antecedent basis for this limitation in the claim.

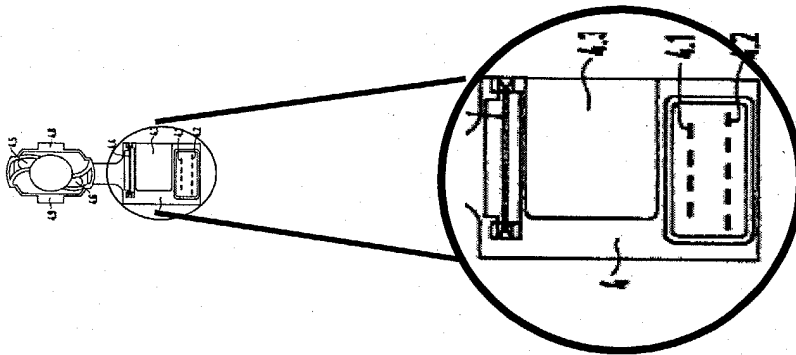
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18. Claim 17 and 18 recites the limitation "the connecting plug".

There is insufficient antecedent basis for this limitation in the claim.

19. Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The location of the segment should be described.

Claim Rejections - 35 USC § 102



20. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

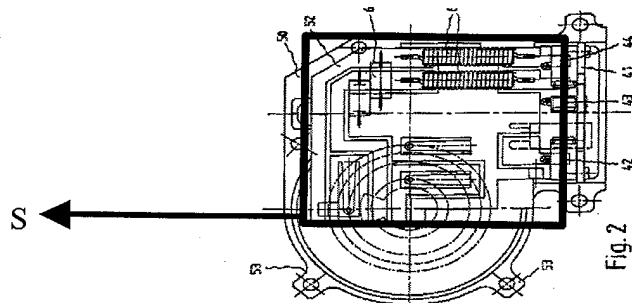
(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

21. Claim 1, 5-7, 11-12 and 16-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Adam et al. U.S. Patent No. 5,528,093.

Adam disclose a electric motor with a transmission and a transmission housing (2) and control electronics located in the transmission housing characterized in that the control electronics comprises at least one printed circuit board (4) which is divide in to parts, where the first part that are is used to accommodate an insertable chip plate (4.4), a relay (4.3) and the plug connectors (4.1 and 4.2) is essentially rectangular and a second part use as a brush holder plate that is essentially rectangular too and located in the transmission housing (2). The circuit board is provided with a hall sensor (8) and a brush holder (3) has connection bridges (see fig.1). Also screws can join the pole housing and the transmission housing (column 3, line 15-22). The brush holder (3) has a connector plug (3.21) which is attached to the printed circuit board (4) using bridge shaped connections bridges and said printed circuit board has not conductor path in the area of the brush sparking on the commutator (7.1) in particular on the side facing the commutator (7.1).

Adam shows a printed circuit board essentially rectangular that is insert into a opening on the transmission housing and a flange connection (6) for connecting the connector plug (3.21) to the transmission housing (2).

22. Claim 1, 2 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Michenfelder et al. U.S. Patent No. 6,613,096.



Michenfelder disclose a electric motor with a transmission and a transmission housing and control electronics located in the transmission housing (50) characterized in that the control electronics comprises at least one printed circuit board which is essentially rectangular (S) and located in the transmission housing. Also has a pole housing and a commutator (11) that extend out over the pole housing (10) (column 5, lines 1-19). The suppression elements (60) are provided and located directly on the printed circuit board.

23. Claim 8 is rejected under 35 U.S.C. 102(e) as being anticipated by Klappenbach et al. U.S. Patent No. 6,201,326.

Klappenbach disclose an electric motor with a transmission and a transmission housing (10) and control electronics located in the transmission housing (10) characterized in that the control electronics comprises at least one printed circuit board (30) which is essentially rectangular and located in the transmission housing. Also disclose a printed circuit board (30) extends at least over the length of the commutator beyond 1.5 the commutator length.

24. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

25. Claim 3, 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adam et al. U.S. Patent No. 5,528,093 in view of Chen U.S. Patent No. 6,525,938.

Adam discloses the claimed invention except for the brush holder provided with grooves or a positive stop for receiving the printed circuit board. However Chen disclose

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a motor provided with a pair of insertion grooves for the purpose of holding a circuit board.

Referring to claim 13, a part (3.1) of the brush holder (3) is clamped between the housing flanges of the motor housing (1) and gear housing (2). Also the printed circuit board is attached to a segment (3.2).

It would have been obvious to one having skill in the art at the time the invention was made to modified Adam's invention and provide a pair of insertion grooves in the brush holder for the purpose of holding a circuit board.

26. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Michenfelder et al. U.S. Patent No. 6,613,096 in view of Weisler U.S. Patent No. 6,127,752.

Michenfelder disclose the claimed invention except for the brush holder supports at least one segment along an armature shaft and that this segment extends beyond the printed circuit board and at its end form at least part of a bearing receptacle. However Weisler disclose that the brush holder (12) supports at least one segment along an armature shaft (1) and that this segment extends beyond the printed circuit board (4) and at its end form at least part of a bearing receptacle (see fig. 1) for the purpose of eliminating significant additional production and assembly.

It would have been obvious to one having skill in the art at the time the invention was made to modified Michenfelder's invention and provide a brush holder that supports at least one segment along an armature shaft and that this segment extends beyond the printed circuit board and at its end form at least part of a bearing receptacle for the purpose of eliminating significant additional production and assembly.

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27. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Adam et al. U.S. Patent No. 5,528,093 in view of Walther et al. U.S. Patent No. 6,555,943.

Adam discloses the claimed invention except for that in the brush holder has holding elements for suppression elements. However Walther disclose a brush holder that has holding elements for suppression elements (23) for the purpose of suppress interference from the carbon brushes (see fig. 2).

It would have been obvious to one having skill in the art at the time the invention was made to modified Adam's invention and provide a brush holder that has holding elements for suppression elements for the purpose of suppress interference from the carbon brushes.

28. Claim 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Michenfelder et al. U.S. Patent No. 6,613,096 in view of Chen U.S. Patent No. 6,525,938, and in further view of Walther et al. U.S. Patent No. 6,555,943.

Michenfelder discloses the claimed invention except for the grooves in the brush holder and that at least one additional attachment of the printed circuit board by means of the suppression element. However Chen disclose a motor provided with a pair of insertion grooves (13) for the purpose of holding a circuit board (2) but doesn't disclose the additional attachment of the printed circuit board by means of the suppression element. However, Walther disclose a brush holder that has holding elements for suppression elements (23) for the purpose of suppress interference from the carbon brushes (see fig. 2).

It would have been obvious to one having skill in the art at the time the invention was made to modified Michenfelder's invention and provide a pair of insertion grooves

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for the purpose of holding the circuit board, and a brush holder that has holding elements for suppression elements for the purpose of suppress interference from the carbon brushes. Because the suppression elements is going to be connected by soldering to the circuit board (as disclose in Michenfelder's invention) the suppression element is going to provide an additional attachment to the circuit board.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yahveh Comas whose telephone number is (703) 305-3419. The examiner can normally be reached on M - F 8:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3432 for regular communications and (703) 308-0956 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

YC
May 5, 2003


KARL TAMAI
PRIMARY EXAMINER